ABSTRACT

An oxidizer supply device (30) comprises an ozonizer (31) for generating ozone (32), a bubbler (34) wherein deionized water (35) is kept and an ozone supply pipe (33) for supplying ozone (32) from the ozonizer (31) is immersed in the deionized water (35) so as to bubble ozone, and a supply pipe (36) for supplying oxidizer (37) containing OH* generated by bubbling of the ozone (32). The device (30) is connected to a feed pipe (18) of an oxide film forming device (10). The oxidizer containing OH* generated by bubbling ozone in the water possesses a powerful oxidizing effect so oxide film can be formed on the wafer at a relatively low temperature in a short time. Semiconductor devices or circuit patterns previously formed on the wafer can be prevented from being damaged by plasma since no plasma is used. The throughput, performance and reliability of the oxide film forming device are therefore improved.